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## I claim:

- A device for delivering an expandable prosthesis in a body lumen comprising:

   an elongate body having a distal end a lumen therethrough; and
   an expandable sheath releasably attached to the distal end of the body, the sheath

  having a distal opening and a lumen therethrough, the sheath further configured to receive an expandable prosthesis.
  - 2. The sheath of claim 1 wherein the releasable attachment comprises an adhesive calibrated to detach from the elongate body when a sufficient expansion force is applied to the sheath by the expandable prosthesis.
  - 3. The sheath of claim 1 wherein the releasable attachment comprises a circumferential perforation configured to detach from the elongate body when a sufficient expansion force is applied to the sheath by the expandable prosthesis.
  - 4. The sheath of claim 1 further comprising perforations to allow blood porosity and to enhance distensability.
    - 5. The expandable prosthesis of claim 1 comprising a stent.
    - 6. The expandable prosthesis of claim 1 comprising a coil.
  - 7. The sheath of claim 1 further comprising perforations to allow blood porosity and to enhance distensability.
    - 8. A detachable prosthesis cover comprising:
      - a tubular member; and
  - a generally tubular sheath having a lumen therethrough and a proximal region of the sheath circumferentially surrounding a distal end of the tubular member, the sheath configured to capture a prosthesis delivered into the lumen and separate from the tubular member.
    - 9. The prosthesis of claim 7 comprising a stent.
    - 10. The expandable prosthesis of claim 7 comprising a coil.

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- 11. The sheath of claim 7 further comprising perforations to allow blood porosity and to enhance distensability.
  - 12. A method of delivering a prosthesis comprising:

providing a delivery system comprising a tubular member, a tubular sheath releasably affixed to the tubular member, a prosthesis, and an actuator for deploying the prosthesis;

advancing a distal end of the tubular member through a body vessel to a position within a human body; and

deploying the prosthesis such that the sheath is positioned between the prosthesis and a vessel wall while maintaining a patent fluid path through the vessel.

- 13. The method of claim 11 further comprising detaching the sheath from the tubular member as the prosthesis is deployed.
  - 14. The method of claim 11 wherein the prosthesis is deployed in an aneurysm.
  - 15. The method of claim 13 wherein the prosthesis is deployed in an aneurysm neck.

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